PERSONAL INFORMATION	
SURNAME	GIANNAKEAS
NAME	NIKOLAOS
DATE OF BIRTH	*20/06/1980*
PLACE OF RESIDENCE	IOANNINA, GREECE
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CURRENT POSITION(S)

11.2019 - Today	**Assistant Professor** Faculty of Informatics and Telecommunications, Department of Informatics and Telecommunications, University of Ioannina, Greece.
05.2020 - Today	**Academic Research Partner** Information Technology Institute (ITI), Center for Research and Technology Hellas (CERTH), Greece.

PREVIOUS POSITION(S)

previous research position(s)/experience starting with the most recent.

04.2017 - 10.2019	**Post-Doc Researcher** Information Technology Institute (ITI), Center for Research and Technology Hellas (CERTH), Greece.
10.2017 - 06.2018 & **10.2018 - 06.2019**	**Academic Fellow** Faculty of Informatics and Telecommunications, Department of Informatics and Telecommunications, University of Ioannina, Greece.
10.2016 – 08.2017	**Post-Doc Research Fellow (IKY Fellow)** Faculty of Applied Technology, Department of Computer Engineering, Technological Educational Institute of Epirus, Greece.
10.2015 - 06.2018	**Academic Fellow** Faculty of Applied Technology, Department of Computer Engineering, Technological Educational Institute of Epirus, Greece.
06.2014 - 10.2015	**Post-Doc Researcher** School of Medicine, University of Ioannina, Greece
10.2009 - 12.2019	**Chief Development Officer** Q Base R&D spin off Company, Greece
02.2004 – 07.2011	**PhD Candidate and Research Assistant** School of Medicine, University of Ioannina, Greece

EDUCATION

separate sections for each degree starting with the most recent.

10.2010 – 07.2020	Degree, School of Science and Technology, Department of Computer Science, Hellenic Open University, Greece.
04.2004 - 07.2011	PhD,School of Medicine, University of Ioannina, Greece, “Image analysis of microarrays using intelligent information systems”, Excellent
10.1999 - 07.2003	Degree, School of Science, Physics Department, University of Ioannina, Greece.

PUBLICATIONS

- High-Throughput, Machine Learning-based Quantification of Steatosis, Inflammation, Ballooning, and Fibrosis in Biopsies From Patients with Nonalcoholic Fatty Liver Disease, R. Forlano*, B.H. Mullish*, **N. Giannakeas***, J.B. Maurice, N. Angkathunyakul, J. Lloyd, A.T. Tzallas, M.G. Tsipouras, M. Yee, M. R. Thursz, R. D. Goldin, P. Manousou , Clin Gastroenterol Hepatol, S1542-3565(19)31505-8, 2019, DOI: 10.1016/j.cgh.2019.12.025 **(IF: 7.958) * Joint first author**
- Derivation and validation of a cardiovascular risk score for prediction of acute cardiovascular events in non-alcoholic fatty liver disease; the importance of an elevated mean platelet volume, R.D. Abeles, B.H. Mullish, R. Forlano, A. Tzallas, **N Giannakeas**, M. Yee, J. Mayet, R.D. Goldin, M.R. Thursz, P. Manousou, Alimentary Pharmacology & Therapeutics, 49(8) 1077-1085, 2019. DOI: 10.1111/apt.15192 **(IF: 7.731)**
- Hybrid extreme learning machine approach for heterogeneous neural networks, V. Christou, M.G. Tsipouras, **N. Giannakeas** and A.T. Tzallas, G. Brown, Neurocomputing, 361, 137-150, 2019.
DOI: https://doi.org/10.1016/j.neucom.2019.04.092 **(IF: 4.072)**
- A Hybrid Extreme Learning Machine approach for Homogeneous Neural Networks, V. Christou, M.G. Tsipouras, **N. Giannakeas** and A.T. Tzallas, Neurocomputing, 311, 397-412. 2018.
DOI: https://doi.org/10.1016/j.neucom.2018.05.064 **(IF: 4.072)**
- Training of deep convolutional neural networks to identify chronic and critical liver conditions in histopathology image samples, A. Arjmand, C.T. Angelis, V. Christou, A.T. Tzallas, M.G Tsipouras, E. Glavas, R. Forlano, P. Manousou, **N. Giannakeas**, Applied Science, 10(1), 42, 2020. DOI: https://doi.org/10.3390/app10010042 **(IF: 2.217)**
- Quantification of liver fibrosis-A comparative study, A. Arjmand, R. Forlano, M. Tsipouras, A. Tzallas, P. Manousou, **N. Giannakeas**, Applied Science,10(2),447,2019. https://doi.org/10.3390/app10020447 **(IF: 2.217)**
- Utilization of the Allen Gene Expression Atlas to gain further insight into glucocorticoid physiology in the adult mouse brain, K. Kalafatakis, **N. Giannakeas,** S.L. Lightman, I. Charalampopoulos, G.M. Russell, M.G. Tsipouras, A.T. Tzallas, Neuroscience Letters, 706, 194-200, 2019. DOI: 10.1016/j.neulet.2019.05.020 **(IF: 2.173)**
- A Methodology for Automated CPA Extraction using Liver Biopsy Image Analysis and Machine Learning Techniques, M. Tsipouras, **N. Giannakeas**, A.T. Tzallas, Z.E. Tsianou, P. Manousou, A. Hall, I. Tsoulos, E. Tsianos, Computer Methods and Programs in Biomedicine, 140, 61-68, 2017. DOI 10.1016/j.cmpb.2016.11.012 **(IF: 3.424)**
- EEG Window Length Evaluation for the Detection of Alzheimer's Disease over Different Brain Regions, K. Tzimourta, **N. Giannakeas**, A.T. Tzallas, L. Astrakas, T. Afrantou, P. Ioannidis, N. Grigoriadis, P. Aggelidis, D.G. Tsalikakis, M.G. Tsipouras, Brain Sciences, 9(4), 81, 2019. https://doi.org/10.3390/brainsci9040081 **(IF: 2.786)**
- Analysis of EEG signals complexity regarding Alzheimer's Disease, K Tzimourta, Th. Afrantou, P. Ioannidis, M. Karatzikou, A.T. Tzallas, **N. Giannakeas**, L. Astrakas, P. Angelidis, E. Glavas, N. Grigoriadis, D. Tsalikakis, and M.G. Tsipouras, Computers and Electrical Engineering, 76, pp. 198-212, 2019. DOI: 10.1016/j.compeleceng.2019.03.018 **(IF: 2.189)**
- A low-cost indoor activity monitoring system for detecting frailty in older adults, T. Tegou, I, Kalamaras, M.G. Tsipouras, **N. Giannakeas**, K. Votis, D. Tzovaras, Sensors, 19(3), 452, 2019. 10.3390/s190304522018 **(IF: 3.031)**
- A Generalized Method for the Gridding of Microarray Images with rectangular or hexagonal grid, N. Giannakeas, T. Kalatzis, M.G. Tsipouras, D.I. Fotiadis, Signal Image and Video Processing, 10(4), 719-728, 2016. DOI: 10.1007/s11760-015-0800-6 **(IF: 1.894)**
- Segmentation of Microarray Images Using Pixel Classification - Comparison with Clustering based Methods, **N. Giannakeas,** P.S. Karvelis, T.P. Exarchos, F.G. Kalatzis and D.I. Fotiadis, Computers in Biology and Medicine, 43(6), 705-716, 2013. DOI: 10.1016/j.compbiomed.2013.03.003 **(IF: 2.286)**
- Spot Addressing for Microarray Images Structured in Hexagonal Grids**, N. Giannakeas**, T. Kalatzis, D.I. Fotiadis, Computer Methods and Programs in Biomedicine, 106, 1-13, 2012, 2009. DOI: https://doi.org/10.1016/j.cmpb.2011.08.001 **(IF: 3.424)**
- An Automated Method for Gridding and Segmentation Of cDNA Microarray Images, **N. Giannakeas**, and D. I. Fotiadis, Computerized Medical Imaging and Graphics, 33(1), 40-49, 2009. DOI: https://doi.org/10.1016/j.compmedimag.2008.10.003 **(IF: 3.298)**

CONFERENCES/WORKSHOPS/etc.

- International Joint Conference on Neural Networks, Self-Adaptive Hybrid Extreme Learning Machine for Heterogeneous Neural Network, July, 2020, Glasgow, Scotland, UK.
- 43rd International Conference on Telecommunications and Signal Processing (TSP), Transfer Learning versus Custom CNN Architectures in NAFLD Biopsy Images, July, 2020, Milan, Italy.
- 42nd International Conference on Telecommunications and Signal Processing, Deep Learning in Liver Biopsies using Convolutional Neural Networks, July, 2019, Budapest, Hungary.
- 42nd International Conference on Telecommunications and Signal Processing, A Lifetime Extension Framework for Wireless Sensor Networks, July, 2019, Budapest, Hungary.
- 42nd International Conference on Telecommunications and Signal Processing (TSP2019), Optimum capacity over power consumption requirements in MIMO systems, July, 2019, Budapest, Hungary
- The International Liver Congress of the European Association for the Study of Liver (EASL), Automated Quantitation of Ballooning, Inflammation, Steatosis and Fibrosis Using Machine Learning in Routine Histological Images of Liver Biopsies of Patients with NAFLD, Vienna, Austria, 2019
- 19th annual IEEE International Conference on BioInformatics and BioEngineering (BIBE), Automated Assessment of Pain Intensity based on EEG Signal Analysis, October, 2019, Athens, Greece.
- 30th annual IEEE International Conference on Tools with Artificial Intelligence (ICTAI), Random forests with stochastic induction of decision trees, 2018, Volos, Greece.
- PErvasive Technologies Related to Assistive Environments (PETRA) conference, Fat Droplets Identification in Liver Biopsies using Supervised Learning Techniques, June, 2018, Corfu, Greece.
- The International Liver Congress of the European Association for the Study of Liver (EASL), Development of an algorithm for the prediction of cardiovascular events in patients with NAFLD: the role of mean platele volume, 2017, Amsterdam, Netherlands.
- 24th Telecommunications Forum (TELFOR), NeuralGenesis: a software for distributed neural network training, 2016, Beograd, Serbia
- 24th Telecommunications Forum (TELFOR), Classification of EEG signals using feature creation produced by grammatical evolution, 2016, Beograd, Serbia
- 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, A clustering-based method for collagen proportional area extraction in liver biopsy images, 2015, Milano, Italy
- 10th IEEE International Conference on Information Technology and Applications in Biomedicine (ITAB 2010), Data analysis of Genome-Wide Association studies (GWAS) concerning rheumatoid arthritis and multiple sclerosis, 2010, Corfu, Greece.
- 32th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Polymerase chain reaction (PCR) and sequence specific oligonucleotide probes (SSOP) genotyping assay for detection of genes associated with rheumatoid arthritis and multiple sclerosis, 2010, Buenos Aires, Argentina
- 31th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Developing a genomic-based point-of-care diagnostic system for rheumatoid arthritis and multiple sclerosis, 2009, Mineapolis, U.S.A.
- 8th IEEE International Conference on Bioinformatics and Bioengineering, Intelligent Patient Profiling for Diagnosis, Staging and Treatment Selection in Colon Cancer, 2008, Athens, Greece
- 30th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, A Classification-Based Segmentation of cDNA Microarray Images using Support Vector Machines, 2008, Vancouver, Canada.
- 29th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Multichannel Segmentation of cDNA Microarray Images using the Bayes Classifier, 2007, Lyon, France.
- 28th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, An Automated Method for Gridding in Microarray Images, 2006, New York, USA.

MEMBERSHIPS & REVIEWING ACTIVITIES

2020 - 2020	Reviewer Board, Applied Science, MDPI
2019 - 2020	Guest Editor of Special Issue, "Human-Robot Interaction Applications in Internet of Things"
2020 - 2020	Reviewer in IEEE Access, (1) review
2018 - 2020	Reviewer in MDPI journals (15) reviews
2010 - 2020	Reviewer in Elsevier journals, (3) reviews
2009 - 2020	Reviewer, Annual Int. Conf. of the IEEE Engineering in Medicine and Biology Society (10 year)
2018 - 2019	Reviewer, International Conference on Information Technology & Systems (2 Years)
2007 - 2009	Student member, IEEE Engineering in Medicine and Biology Society (EMBS)

TEACHING ACTIVITIES

2019 - 2020	Lectures in Post-Graduate Program of the Department of Informatics and Telecommunications, University of Ioannina. Teaching "Advances in Digital Signal Processing" and "Biomedical Engineering"
2018 - 2019	Academic Fellow (16 teaching Hours per week)- Faculty of Informatics and Telecommunications, Department of Informatics and Telecommunications, University of Ioannina, Greece.
2015 - 2018	Academic Fellow (16 teaching Hours per week) - Faculty of Applied Technology, Department of Computer Engineering, Technological Educational Institute of Epirus, Greece.
2013 - 2017	Adjunct Lecture in Post-Graduate Program of School of Medicine, University of Ioannina, "Nursing Pathology", Teaching "Medical Informatics",
2013 - 2014	Adjunct Assistant Professor - Faculty of Applied Technology, Department of Computer Engineering, Technological Educational Institute of Epirus, Greece.

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

2013 - 2018	1 PhD (Currently) / 2 Master Student (Currently) / 10 Pre-Graduate Students (Completed) University of Ioannina, Greece.
2013 - 2018	1 Master Student (Completed) / 25 Pre-Graduate Students (Completed) Technological and Education Institute of Epirus, Greece.

FELLOWSHIPS and AWARDS

2016 - 2017	**IKY Fellowships** of excellence for postgraduate studies in Greece - Siemens Program (Contract No. 2017-017-0173-11220), Faculty of Applied Technology, Department of Computer Engineering, Technological Educational Institute of Epirus, Greece.
2013	Supporting member of the team participated in the **Health and Wellness Innovation 2013** award organized by **Massachusetts Institute of Technology - MIT**, prizes: i) **Most Innovative Solution** & ii) **Best Use of Resources**. http://excellence.minedu.gov.gr/draseis/listing/720-tzallas
2017	**International Patent** - Method and Glove/Device for the determination and improve evaluation of the motor symptoms of a disease, A. Tzallas, M. Tsipouras, I. Smanis, N. Katertsidis, N. Giannakeas, World Intellectual Property Organization, Pub. No.: WO2017221037, 28-12-2017
2011-2014	The project ALEXILIO, in which I have the role of Coordinator (see below) is presented as **good practice of the action**. http://www.antagonistikotita.gr/greek/worksResultsFull.asp?id=85
2017	**1st Prize Student Best Paper Award** in 30th IEEE International Symposium on Computer-Based Medical Systems (CBMS-2017)

RESEARCH GRANTS

Project Title	Funding source	Period	Role of the PI
A holistic model of management, traceability and governance agri-food systems - Origin#Roots (project code: T2EDK-01195)	*ESPA 2014-20 Action "RESEARCH* - CREATE - INNOVATE"	05.2020-05.2022	Scientific Responsible of the Project
Automated system for ballooning degeneration measurement in liver biopsies – xBalloon (project code: HP1AB-00063)	*ESPA 2014-20 Operational Programme 'Epirus' 2014-2020*	09.2018-09.2020	Coordinator of the Project & Scientific Responsible of Q Base R&D Partner.
A cloud-based Platform for the bioactivity of herbs in Epirus Region – BioActHerb (project code – HP1AB-00225)	*ESPA 2014-20 Operational Programme 'Epirus' 2014-2020*	03.2018-09.2020	Scientific Responsible of Q Base R&D Partner.
Smart system for the protection of UV solar radiation – ALEXILIO (44NEWE2009)	ESPA 2007-13 "Support of new enterprises for research and technological development"	07.2011-01.2014	Coordinator of the Project
Intelligent System of Outpatient Monitoring Evaluation during lokomoTor Rehabilitation in Internet Cloud – ISOMETRIC (project code -T1EDK-04122)	*ESPA 2014-20 Action "RESEARCH* - CREATE - INNOVATE"	10.2018-10-2019 05-2020-Today	Academic Researcher
A Hospital Healthcare Monitoring System Using Wireless Sensor Networks – HUMORIST (project code -HP1AB-00260)	*ESPA 2014-20 Operational Programme 'Epirus' 2014-2020*	01.2020-06.2020	Academic Researcher
Smart Glove for Assessment of the Motor Condition of Patients with Neurodegenerative Diseases (project code -HP1AB-00193)	*ESPA 2014-20 Operational Programme 'Epirus' 2014-2020*	11.2019-Today	Academic Researcher
Sensing and predictive treatment of frailty and associated comorbidities using advanced personalized patient models and advanced interventions (2016: H2020-RIA, Grant agreement ID: 690140)	Horizon 2014-2020	01.2018-10.2018	Post doc researcher
Analysis, modelling and sensing of both physiological and environmental factors for the customized and predictive self-management of Asthma (2015: H2020-RIA, grant agreement No. 643607)	Horizon 2014-2020	04.2017-12.2017	Post doc researcher

GRANT APPLICATIONS

Participation in more than 30 Research Proposal during the last 5 years, including Horizon2020, Interreg, ESPA2020

Project Title	Funding source	Submission date	Role of the PI
Intelligent Platform for Supporting Diagnosis/ Staging in Biopsies using Deep Learning (project code: T2EDK-03660)	*ESPA 2014-20 Action "RESEARCH* - CREATE - INNOVATE"	15.11.2019	Academic Researcher
MEGATRON: Big Data Analysis for Optimal Kinetic Rehabilitation using Robot Assisted walking and 3D Camera System	ESPA 2014-2020 Action Supporting Regional Excellence	14.07.2019	Academic Researcher